

ples that actual, rather than apparent, hybridization does occur and is largely responsible for the taxonomic complexity of these groups.

The Flora is illustrated with several excellent line drawings by Nancy Adams, who also designed the attractive dust jacket. To achieve a volume of handbook size, very thin paper was used; the nearly 1100 pages make a book only 2 cm. thick. The copious notes are printed in 6-point type, which seems too small to be read comfortably for very long. The printing and binding are very well done. The small size of the volume should not belie the riches it contains. ROBERT ORNDUFF, Department of Botany, Duke University, Durham, North Carolina.

NOTES AND NEWS

CHROMOSOME NUMBERS IN CROSSOSOMA. Since the relationships of the small family Crossosomataceae have been a subject of discussion, it is of interest to record the chromosome numbers of two species of the only genus. *Crossosoma californicum* Nutt. is confined to Santa Catalina, San Clemente, and Guadalupe islands off the coast of southern California and Baja California, whereas *C. bigelovii* Wats. is found about the margins of the Sonoran Desert in California, Arizona, Baja California, and Sonora. *Crossosoma parviflorum* Rob. & Fern. and *C. glaucum* Small, both described from Arizona, are probably not distinct from *C. bigelovii* at a specific level, and so the family probably consists of only two species. The chromosome number of *C. californicum* was determined from buds collected from Pebbly Beach Canyon near the

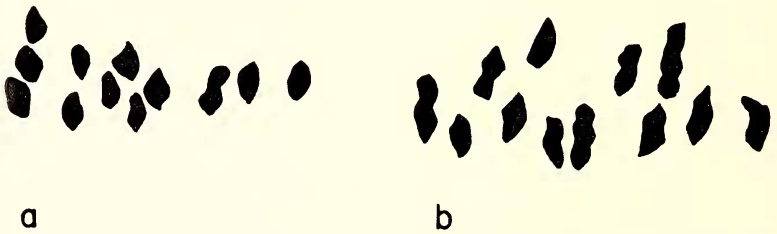


FIG. 1. Chromosomes of *Crossosoma* at meiotic metaphase I, a, *C. californicum*; b, *C. bigelovii*. Both figures $\times 2600$.

water purification plant, Santa Catalina Island, Los Angeles County, California (Taylor & Ornduff 4383, UC); from material propagated at Rancho Santa Ana Botanic Garden, taken from a collection (Wolf 1487, RSA; fig. 1a) made at the junction of Pebbly Beach and Renton Mine roads, Santa Catalina Island; and from material of undetermined origin cultivated in the East Bay Regional Parks. All of these collections had a gametic chromosome number of $n=12$, with no meiotic irregularities observed, as did a single collection of *C. bigelovii* from Morongo Valley, Riverside County, California (Davis 105, RSA; fig. 1b). The twelve pairs of relatively small chromosomes found in these plants are markedly different from the five very large pairs found in *Paeonia* (Ranunculaceae), with which *Crossosoma* has been allied. They are, however, more or less similar to the chromosomes found in a number of other families of angiosperms. PETER H. RAVEN, Division of Systematic Biology, Stanford University, California, and MARION S. CAVE, Department of Botany, University of California, Berkeley.